

CLAIMS

What is claimed is:

1. A continuous-treatment apparatus for subjecting a surface, which is targeted for treatments, of an object to continuous plural types of treatments, comprising:

an object carrier selectively holding the object and carrying the object along a carrying direction; and

plural types of treatment units which are arranged side by side along the carrying direction of the object and which subject the surface, which is targeted for treatments, of the object to sequential different treatments at atmospheric pressure or at a pressure near atmospheric pressure,

wherein, a combination of the plural types of treatment units may be changed at will and any desired type of treatment unit may be added.

2. The continuous-treatment apparatus according to Claim 1, wherein the object carrier comprises:

a suction portion removably suctioning and holding a surface targeted for holding, which is opposite to the surface targeted for treatments, of the object;

a guide component guiding the suction portion in the carrying direction; and

a driving portion transferring the suction portion along the guide component.

3. The continuous-treatment apparatus according to Claim 1, wherein the object is carried by the object carrier while the surface targeted for treatments of the object is facing downward, and the plural types of treatment units are operated upward to treat the surface, which is targeted for treatments, of the object.

4. The continuous-treatment apparatus according to Claim 3, wherein the plural types of treatment units comprise a cleaning treatment unit, a drying treatment unit, a surface modification treatment unit, a liquid agent application treatment unit, and an annealing treatment unit.

5. The continuous-treatment apparatus according to Claim 1, wherein the object comprises a substrate of a display device.

6. A continuous-treatment method for subjecting a surface, which is targeted for treatments, of an object to continuous plural types of treatments, the method comprising:

subjecting the surface, which is targeted for treatments, of the object to sequential different treatments at atmospheric pressure or at a pressure near atmospheric pressure through the use of plural types of treatment units arranged side by side along a carrying direction of the object while the object is held and the object is carried along the carrying direction, wherein the combination of the plural types of treatment units may be changed at will and any desired type may be added in accordance with the type of the object.

7. The continuous-treatment method according to Claim 6, wherein the object is carried by the object carrier while the surface, which is targeted for treatments, is facing downward, and the plural types of treatment units are operated upward to treat the surface, which is targeted for treatments, of the object.

8. The continuous-treatment method according to Claim 7, wherein the plural types of treatment units comprise a cleaning treatment unit, a drying treatment unit, a surface modification treatment unit, a liquid agent application treatment unit, and an annealing treatment unit.

9. A continuous-treatment apparatus comprising:

an object carrier selectively holding an object and carrying the object along a carrying direction, the object carrier holding the object so that a surface of the object which is targeted for treatments faces downward; and

a plurality of different types of treatment units arranged side by side in a line along the carrying direction of the object, the plurality of different types of treatment units subjecting the surface of the object which is targeted for treatments to sequential different upwardly directed treatments at or near atmospheric pressure,

wherein, a combination of treatment units constituting the plurality of different types of treatment units may be changed at will and any desired type of treatment unit may be added.